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QUARLES & BRADY LLP 411 E. WISCONSIN AVENUE SUITE 2040 MILWAUKEE, WI 53202-4497			FERRIS III, FRED O	
			ART UNIT	PAPER NUMBER
			2128	

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/776,218

Applicant(s)

REPS, THOMAS W.

Examiner

Fred Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/2/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. *Claims 1-25 have been presented for examination based on applicant's preliminary amendment filed on 15 May 2001. Claims 1-25 have been rejected by the examiner.*

### **Priority**

2. *Applicant's claim for priority based on provisional application number 60/180,099 filed on 3 February 2000 is acknowledged.*

### **Information Disclosure Statement**

3. *The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. In this case, the listing of references on pages 2 and 3 of the specification is improper because only 7 out of the 25 listed documents are included on applicant's Information Disclosure Statement (PTO 1449).*

### **Specification**

4. *The examiner notes that two specifications have been filed with the present application, one submitted on 15 May 2001, and another submitted on 2 February 2001.*

*For purposes of examination the examiner has used the specification dated 15 May 2001. (see requirement for substitute specification below)*

*The apparent attempt to incorporate subject matter into this application by reference to [SF96] page 7, [HMM85] page 8, for example, is improper because it is unclear where applicants invention starts and the prior art stops. The specification is replete with such references.*

*The claims are objected to because the lines are crowded too closely together, making reading and entry of amendments difficult. Substitute claims with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).*

*The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. See page 2, line 42, for example. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.*

*The disclosure is also objected to because of the following informalities that are not in accordance with 37 CFR 1.52:*

- *Footnotes: pages 4-6 for example*
- *Line numbers: (not included)*
- *line spacing: single spaced*
- *tables: not referenced, see pages 6, 7*

*Applicants are reminded of proper content of the disclosure (See MPEP 601, 608).*

### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The

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title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.

- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems

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previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (k) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed

in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

*Appropriate correction of the errors noted above is required. A substitute specification is therefore required pursuant to 37 CFR 1.125(a).*

*A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.*

### **Claim Objections**

5. *Claim 3 is objected to because of the following informalities: The word "memoization" in line 4 is misspelled. Appropriate correction is required.*

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**6. Claims 1-25 are rejected under 35 U.S.C. 101 because the claimed invention is drawn to non-statutory subject matter.** The Examiner submits that Applicant's have not recited any limitations relating to a practical application in the technological arts and have merely claimed a manipulation of abstract ideas (mathematical constructs). Section 2106 [R-2] (Patentable Subject Matter — Computer-Related Inventions) of the MPEP recites the following:

*“In practical terms, claims define nonstatutory processes if they:*  
– *consist solely of mathematical operations without some claimed practical application (i.e., executing a “mathematical algorithm”); or*  
– *simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759), without some claimed practical application.”*

In this case, claims 1-25 are drawn to implementing graphs by Boolean-variable-to-Boolean-value assignments, allocating tables in constructing Groupings of proto-CFLOBDDs, projection functions, creating matrices, sequence of values, and representing CFLOBDDs. Specifically, claims 1-25 are drawn to the manipulation of abstract ideas (mathematical constructs) as follows:

Claims 1-4: allocating tables and grouping proto-CFLOBDD.

Claims 5-7, 21-25: CFLOBDD sequence of values.

Claims 8-15: representing boolean-valued CFLOBDD and multi-terminal CLFOBDD.

Claims 16-20: multi-terminal CLFOBDD matrices.



*An invention which is eligible for patenting under 35 U.S.C. § 101 is in the “useful arts” when it is a machine, manufacture, process or composition of matter, which produces a concrete, tangible, and useful result. The fundamental test for patent eligibility is thus to determine whether the claimed invention produces a “**useful, concrete and tangible result.**” The test for practical application as applied by the examiner involves the determination of the following factors:*

*(1) “Useful” - The Supreme Court in *Diamond v. Diehr* requires that the examiner look at the claimed invention as a whole and compare any asserted utility with the claimed invention to determine whether the asserted utility is accomplished.*

*(2) “Tangible” - Applying *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994), the examiner will determine whether there is simply a mathematical construct claimed, such as a disembodied data structure and method of making it. If so, the claim involves no more than a manipulation of an abstract idea and therefore, is nonstatutory under 35 U.S.C. § 101. In *Warmerdam* the abstract idea of a data structure became capable of producing a useful result when it was fixed in a tangible medium which enabled its functionality to be realized.*

*(3) “Concrete” - Another consideration is whether the invention produces a “concrete” result. Usually, this question arises when a result cannot be assured. An appropriate rejection under 35 U.S.C. § 101 should be accompanied by a lack of enablement rejection, because the invention cannot operate as intended without undue experimentation.*

*The Examiner respectfully submits, under current PTO practice, that the claimed invention does not recite either a useful, concrete, or tangible result and is merely drawn to a manipulation of abstract ideas.*

- *The invention is not useful since the method of claims 1-25 does not recite a result that is useful in the technological art. This makes it difficult to determine Applicant's invention since it merely claims a manipulation of abstract ideas. While the preamble of claims 21-25 cite a data compression method as the use, the limitations of the claimed method steps merely appear to manipulate an abstract idea and do not recite a useful compression/decompression result. (The patent eligibility standard requires **significant functionality to be present to satisfy the useful result aspect** of the practical application requirement. See *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036.)*
- *The claims are not tangible since, for example, the results of "Structural Invariants 1-5", "applying Algorithm 1" and "applying routine(s)" are undefined. (see claims 1, 2, and 5-15)*
- *The claims are not concrete because the results are not assured. For example, is a solution possible for any and all arbitrary inputs? (i.e. any groupings or proto-CFLOBDD's)*

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. ***Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.***

Per claim 1: The term “according to the class definitions given in Figure 12 and Structural Invariants 1-5” renders the claim indefinite. MPEP 2171 requires the following:

**2171 Two Separate Requirements for Claims Under 35 U.S.C. 112, Second Paragraph**

*The second paragraph of 35 U.S.C. 112 is directed to requirements for the claims:*

*The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.*

*There are two separate requirements set forth in this paragraph:*

*(A) the claims must set forth the subject matter that applicants regard as their invention; and*

*(B) the claims must particularly point out and **distinctly define the metes and bounds of the subject matter that will be protected by the patent grant.***

*The first requirement is a subjective one because it is dependent on what the applicants for a patent regard as their invention. The second requirement is an objective one because it is not dependent on the views of applicant or any particular individual, but is evaluated in the context of whether the claim is definite — i.e., whether the scope of the claim is clear to a hypothetical person possessing the ordinary level of skill in the pertinent art.*

*In this case, the reference to “Figure 12 and Structural Invariants 1-5” in claim 1 is improper because Figure 12 represents a pseudo-code listing (see specification page 24), and the Structural Invariants 1-5 are dependent on the specific substructure connection (see specification page 15), which makes it impossible for one skilled in the art to establish the metes and bounds of the claim. The reference to the Structural Invariants and Figure 12 fails to point out specifically what is **included or excluded** by the language of the claims.*

*Claim 1 is also ambiguous as claiming both an apparatus and a method in a single claim. MPEP section 2173.05(p) recites the following:*

*“A single claim which **claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph.** In *Ex parte Lyell*, 17*

*USPQ2d 1548 (Bd. Pat. App. & Inter. 1990), a claim directed to an automatic transmission workstand and the method steps of using it was held to be ambiguous and properly rejected under 35 U.S.C. 112, second paragraph.*

*Such claims should also be rejected under 35 U.S.C. 101 based on the theory that the claim is directed to neither a "process" nor a "machine," but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. *Id.* at 1551."*

*In this case, claim 1 is improper because both the method of "organizing blocks of memory" for "a given set of Boolean variables" and the actual "blocks of memory connected to form a structure" (i.e. the apparatus), are recited in the same claim.*

*Per claims 2 and 22: Claims 2 and 22 recite the limitation "apply Algorithm 1" and are indefinite since a skilled artisan would not be able to determine the scope of the claim because it fails to point out specifically what is **included** or **excluded** by the language of the claims. That is, it is unclear as to what Algorithm 1 includes or excludes. Claim 2 is dependent from independent claim 1 and therefore also inherits the defects of claim 1.*

*Per claims 3 and 4: The term "unique representatives of values" is indefinite since a skilled artisan would not know how to ascertain the metes and bounds of the "values" of the given "type" from the language of the claims and the specification does not provide a standard for ascertaining the requisite scope of the invention.*

*Per claims 5-15: Each of these claims (5-15) recites the phrase "comprising the following steps:" and then recites the step of "apply routine" followed by the name of a program subroutine (function). For example, claim 9 recites the step of "Apply routine FlipValueTripleCFLOBDD(c)". However, a skilled artisan would not be able to determine the scope of the subject matter that is distinctly being claimed from the*

specification (see page 30, line 1-7), Figure 20, or the language of the claim. The reference to these subroutines (functions) fails to point out specifically what is **included** or **excluded** by the language of the claims. Claims 5-8 and 10-15 are similarly delinquent in allowing a skilled artisan to determine the scope of the claimed subject matter using the same reasoning.

Per claim 16: This claim is indefinite on several levels. First, to name a few, the phrase "Without loss of generality" is indefinite since a skilled artisan would not know how to ascertain the metes and bounds of a "loss of generality". Second, the phrase "we can make the assumption.." is clearly indefinite claim language since it does not distinctly claim the subject matter of interest.

Per claims 17-20 and 24-25: Each of these claims (17-20, 24-25) again recites the phrase "comprising the following steps:" and then recites the step of "apply routine" followed by the name of a program subroutine (function). For example, claims 24 and 25 recite the step of "Apply routine UncompressCFLOBDD". However, a skilled artisan would not be able to determine the scope of the subject matter that is distinctly being claimed from the specification (see page 42, line 31), Figure 42, or the language of the claims. Again, the reference to these subroutines (functions) fails to point out specifically what is **included** or **excluded** by the language of the claims. Claims 17-20 are similarly delinquent in allowing a skilled artisan to determine the scope of the claimed subject matter using the same reasoning. Claim 25 is also indefinite because the phrase "Apply a version of routine.." does not establish specific scope (i.e. version) of the claimed subject matter.

Per claims 21 and 23: In addition to the reasoning cited above, claims 21 and 23 are also indefinite because a skilled artisan would not know how to ascertain the metes and bounds the term "distinguished values" and the language of the claims and the specification do not provide a standard for ascertaining the requisite scope of the invention.

**8. Claims 5-15, 17-20, and 24-25 are also rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. MPEP § 2172.01 recites the following:**

**2172.01 [R-1] Unclaimed Essential Matter**

*A claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling. In re Mayhew, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). See also MPEP § 2164.08(c). Such essential matter may include missing elements, steps or necessary structural cooperative relationships of elements described by the applicant(s) as necessary to practice the invention.*

*In addition, a claim which fails to interrelate essential elements of the invention as defined by applicant(s) in the specification may be rejected under 35 U.S.C. 112, second paragraph, for failure to point out and distinctly claim the invention. See In re Venezia, 530 F.2d 956, 189 USPQ 149 (CCPA 1976); In re Collier, 397 F.2d 1003, 158 USPQ 266 (CCPA 1968). >But see Ex parte Nolden, 149 USPQ 378, 380 (Bd. Pat. App. 1965) ("[I]t is not essential to a patentable combination that there be interdependency between the elements of the claimed device or that all the elements operate concurrently toward the desired result"); Ex parte Huber, 148 USPQ 447, 448-49 (Bd. Pat. App. 1965) (A claim does not necessarily fail to comply with 35 U.S.C. 112, second paragraph where the various elements do not function simultaneously, are not directly functionally related, do not directly intercooperate, and/or serve independent purposes.).*

In this case, each of the claims (5-15, 17-20, and 24-25) recites the phrase "comprising the following steps:" but subsequently recites only the single step of "apply routine" followed by the name of a program subroutine (function). The reference to

*these functions fails to point out specifically what is **included** or **excluded** by the language of the claims.* For example, claims 11 and 12 recite the single step of "apply routine BinaryApplyAndReduce". However, the specification page 30, line 20 to page 31, line 25, and Figure 23, discloses that there are at least five essential steps (i.e. omitted steps) involved in executing this routine including cross product, create tuple values, collapse duplicate leaf value, perform deduction, and return CFLOBDD. (See Fig. 23) Claims 11 and 12 also fail to interrelate these essential elements. In a nutshell, these claims fail to recite a series of steps that logically amount to the method of the claimed BinaryApplyAndReduce function. Claims 5-10, 13-15, 17-20 and 24-25 similarly include missing steps and fail to interrelate essential elements for the same reasons.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. **Claims 5-15, 17-20, and 25 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling.** In accordance with MPEP section 2164.08(a) these claims are subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph as reciting only a single means (step). MPEP § 2164.08(a) recites the following:

**2164.08(a) Single Means Claim**

A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is **subject to an undue breadth rejection under 35**

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**U.S.C. 112, first paragraph.** *In re Hyatt*, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to *Hyatt* is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.

In this case, each of the claims (5-15, 17-20, and 25) recites the phrase "comprising the following steps:" but subsequently recites only the single step (i.e. single means) of "apply routine" followed by the name of a program subroutine. For example, claims 11 and 12 recite only the single step (single means) of "apply routine BinaryApplyAndReduce". This single step is nonenabling for the scope of the claim since it is not in combination with any additional means (steps) and, hence, can be interpreted as encompassing every conceivable means for achieving the claimed limitation. Claims 5-10, 13-15, 17-20 and 24-25 are similarly nonenabling they also recite only a single means (i.e. a single step).

10. In summary, claims 1-25 are so indefinite and replete with errors that no prior art examination is feasible. Specifically, the Examiner should not rely "on what at best are speculative assumptions as to the meaning of the claims", and should not base "a rejection under 35 U.S.C. 103 thereon...[when] the claims do not particularly point out and distinctly claim the invention as required by 35 U.S.C. 112." *In re Steele*, 305 F.2d 859, 134 USPQ 292, 295 (CCPA 1962). Also see *In re Citron*, 45 CCPA 773, 251 F.2d 619, 116 USPQ 409.



*Note that claims 1-25 have been rejected under 35 USC 101 as being drawn to non-statutory subject matter, and further rejected under 35 USC 112 Second Paragraph for indefinite claims. The Examiner believes that it would be counter-productive to make speculative assumptions for the purpose of examination against prior art. These claims will be examined against prior art only after such an examination becomes feasible. In the interest of compact prosecution the examiner has cited any relevant prior art that was uncovered during prior art search on the attached PTO 892 form.*


### **Conclusion**

11. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 703-305-9670 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 703-305-3900.*

*The Official Fax Numbers are:*

Official (703) 872-9306

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September 10, 2004